

No. AQ 120 (Rev. 2/99)

<b>TO: Mail Stop 8</b> <b>Director of the U.S. Patent &amp; Trademark Office</b> <b>P.O. Box 1450</b> <b>Alexandria, VA 22313-1450</b>	<b>REPORT ON THE</b> <b>FILING OR DETERMINATION OF AN</b> <b>ACTION REGARDING A PATENT OR</b> <b>TRADEMARK</b>
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In Compliance with 35 § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been  
 filed in the U.S. District Court Northern District of California on the following ☒ Patents or ☐ Trademarks:

DOCKET NO <b>CV 10-05449 JL</b>	DATE FILED <b>12/1/10</b>	U.S. DISTRICT COURT <b>Northern District of California</b>
PLAINTIFF <b>RAMBUS INC</b>		DEFENDANT <b>STMICROELECTRONICS NV</b>
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 <b>19 54h</b>		
2		
3		
4		
5		

In the above—entitled case, the following patent(s) have been included:

DATE INCLUDED	INCLUDED BY	<input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1		
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT
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CLERK <b>Richard W. Wackling</b>	(BY) DEPUTY CLERK <b>Gloria Acevedo</b>	DATE <b>December 2, 2010</b>
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Copy 1—Upon initiation of action, mail this copy to Commissioner    Copy 3—Upon termination of action, mail this copy to Commissioner  
 Copy 2—Upon filing document adding patent(s), mail this copy to Commissioner    Copy 4—Case file copy

1           51. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics has  
2 sold or offered to sell its Accused Products to third parties who incorporate the Accused Products  
3 into their own products. Those third parties in turn have made, used, sold, offered for sale, and/or  
4 imported and/or continue to make, use, sell, offer for sale, and/or import their own products in the  
5 United States. These activities undertaken by the third parties constitute acts of direct infringement  
6 of the Asserted Patents. The memory controllers and peripheral interfaces in STMicroelectronics's  
7 Accused Products are known by STMicroelectronics to be especially made or especially adapted for  
8 use in infringement of the Asserted Patents and are not staple articles or commodities of commerce  
9 suitable for substantial non-infringing use. STMicroelectronics has thereby contributed to and  
10 continues to contribute to the infringement of the Asserted Patents.

11           52. Rambus is informed and believes, and thereupon alleges, that, by its sales and/or  
12 offers for sale of the Accused Products to third parties, STMicroelectronics also has induced and  
13 continues to induce acts by third parties that STMicroelectronics knew or should have known would  
14 constitute direct infringement of the Asserted Patents. STMicroelectronics actively induces  
15 infringement of the Asserted Patents by designing the Accused Products to be capable of  
16 infringement and by promoting and encouraging the use of its products by the third parties in ways  
17 that infringe the Asserted Patents.

18           53. Rambus is entitled to recover from STMicroelectronics the actual damages it  
19 sustained as a result of STMicroelectronics's wrongful acts alleged herein under 35 U.S.C. § 284 in  
20 an amount to be proven at trial, together with interest and costs.

21           54. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics's  
22 infringement of the Asserted Patents as set forth herein has been and is willful, deliberate and in  
23 disregard of Rambus's patent rights, and Rambus is therefore entitled to increased damages up to  
24 three times the amount of actual damages and attorneys' fees, pursuant to 35 U.S.C. §§ 284, 285.

25           55. STMicroelectronics's infringement of the Asserted Patents will continue to damage  
26 Rambus, causing irreparable harm for which there is no adequate remedy at law, unless it is enjoined  
27 by this Court.  
28

V.

**CLAIMS FOR RELIEF**

**COUNT I**

**(Patent Infringement of U.S. Patent No. 6,034,918  
Under 35 U.S.C. § 271, *et seq.*)**

56. Rambus incorporates by reference and realleges paragraphs 1 through 55 above as though fully restated herein.

57. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics: (1) has infringed claims of the '918 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including SDR and/or DDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '918 Patent, and/or has actively induced others to infringe claims of the '918 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT II**

**(Patent Infringement of U.S. Patent No. 6,038,195  
Under 35 U.S.C. § 271, *et seq.*)**

58. Rambus incorporates by reference and realleges paragraphs 1 through 57 above as though fully restated herein.

59. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics: (1) has infringed claims of the '195 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including SDR and/or DDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '195 Patent, and/or has actively induced others to infringe claims of the '195 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT III**

**(Patent Infringement of U.S. Patent No. 6,260,097  
Under 35 U.S.C. § 271, *et. seq.*)**

60. Rambus incorporates by reference and realleges paragraphs 1 through 59 above as though fully restated herein.

61. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics: (1) has infringed claims of the '097 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including DDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '097 Patent, and/or has actively induced others to infringe claims of the '097 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT IV**

**(Patent Infringement of U.S. Patent No. 6,304,937  
Under 35 U.S.C. § 271, *et. seq.*)**

62. Rambus incorporates by reference and realleges paragraphs 1 through 61 above as though fully restated herein.

63. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics: (1) has infringed claims of the '937 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including DDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '937 Patent, and/or has actively induced others to infringe claims of the '937 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT V**

**(Patent Infringement of U.S. Patent No. 6,426,916  
Under 35 U.S.C. § 271, *et. seq.*)**

64. Rambus incorporates by reference and realleges paragraphs 1 through 63 above as though fully restated herein.

65. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics: (1) has infringed claims of the '916 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including SDR and/or DDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '916 Patent, and/or has actively induced others to infringe claims of the '916 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT VI**

**(Patent Infringement of U.S. Patent No. 6,564,281  
Under 35 U.S.C. § 271, *et. seq.*)**

66. Rambus incorporates by reference and realleges paragraphs 1 through 65 above as though fully restated herein.

67. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics: (1) has infringed claims of the '281 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including SDR and/or DDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '281 Patent, and/or has actively induced others to infringe claims of the '281 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT VII**

**(Patent Infringement of U.S. Patent No. 6,584,037  
Under 35 U.S.C. § 271, *et. seq.*)**

68. Rambus incorporates by reference and realleges paragraphs 1 through 67 above as though fully restated herein.

69. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics: (1) has infringed claims of the '037 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including DDR2 and/or DDR3 memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '037 Patent, and/or has actively induced others to infringe claims of the '037 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT VIII**

**(Patent Infringement of U.S. Patent No. 6,715,020  
Under 35 U.S.C. § 271, *et. seq.*)**

70. Rambus incorporates by reference and realleges paragraphs 1 through 69 above as though fully restated herein.

71. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics: (1) has infringed claims of the '020 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including SDR, and/or DDR-type memory controllers, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '020 Patent, and/or has actively induced others to infringe claims of the '020 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT IX**

**(Patent Infringement of U.S. Patent No. 6,751,696  
Under 35 U.S.C. § 271, *et. seq.*)**

72. Rambus incorporates by reference and realleges paragraphs 1 through 71 above as though fully restated herein.

73. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics: (1) has infringed and continues to infringe claims of the '696 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including DDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '696 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '696 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT X**

**(Patent Infringement of U.S. Patent No. 7,209,997  
Under 35 U.S.C. § 271, *et. seq.*)**

74. Rambus incorporates by reference and realleges paragraphs 1 through 73 above as though fully restated herein.

75. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics: (1) has infringed and continues to infringe claims of the '997 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including SDR and/or DDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States; and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '997 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '997 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT XI**

**(Patent Infringement of U.S. Patent No. 6,470,405  
Under 35 U.S.C. § 271, *et. seq.*)**

76. Rambus incorporates by reference and realleges paragraphs 1 through 75 above as though fully restated herein.

77. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics: (1) has infringed and continues to infringe claims of the '405 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including DDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '405 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '405 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT XII**

**(Patent Infringement of U.S. Patent No. 6,591,353  
Under 35 U.S.C. § 271, *et. seq.*)**

78. Rambus incorporates by reference and realleges paragraphs 1 through 77 above as though fully restated herein.

79. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics: (1) has infringed and continues to infringe claims of the '353 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including DDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '353 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '353 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT XIII**

**(Patent Infringement of U.S. Patent No. 7,287,109  
Under 35 U.S.C. § 271, et. seq.)**

80. Rambus incorporates by reference and realleges paragraphs 1 through 79 above as though fully restated herein.

81. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics: (1) has infringed and continues to infringe claims of the '109 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including DDR-type and/or GDDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '109 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '109 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT XIV**

**(Patent Infringement of U.S. Patent No. 6,542,555  
Under 35 U.S.C. § 271, et. seq.)**

82. Rambus incorporates by reference and realleges paragraphs 1 through 81 above as though fully restated herein.

83. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics: (1) has infringed and continues to infringe claims of the '555 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including PCI Express and DisplayPort peripheral interfaces and certain SATA peripheral interfaces, in this district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '555 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '555

1 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United  
2 States.

3 **COUNT XV**

4 **(Patent Infringement of U.S. Patent No. 7,099,404**  
5 **Under 35 U.S.C. § 271, *et. seq.*)**

6 84. Rambus incorporates by reference and realleges paragraphs 1 through 83 above as  
7 though fully restated herein.

8 85. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics:  
9 (1) has infringed and continues to infringe claims of the '404 Patent, literally and/or under the  
10 doctrine of equivalents, by making, using, offering to sell, selling (directly or through  
11 intermediaries), and/or importing Accused Products consisting of or including PCI Express and  
12 DisplayPort peripheral interfaces and certain SATA peripheral interfaces, in this district and  
13 elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal  
14 infringement and/or infringement under the doctrine of equivalents of claims of the '404 Patent,  
15 and/or has actively induced and continues to actively induce others to infringe claims of the '404  
16 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United  
17 States.

18 **COUNT XVI**

19 **(Patent Infringement of U.S. Patent No. 7,580,474**  
20 **Under 35 U.S.C. § 271, *et. seq.*)**

21 86. Rambus incorporates by reference and realleges paragraphs 1 through 85 above as  
22 though fully restated herein.

23 87. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics:  
24 (1) has infringed and continues to infringe claims of the '474 Patent, literally and/or under the  
25 doctrine of equivalents, by making, using, offering to sell, selling (directly or through  
26 intermediaries), and/or importing Accused Products consisting of or including PCI Express and  
27 DisplayPort peripheral interfaces and certain SATA peripheral interfaces, in this district and  
28 elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal  
infringement and/or infringement under the doctrine of equivalents of claims of the '474 Patent,

1 and/or has actively induced and continues to actively induce others to infringe claims of the '474  
2 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United  
3 States.

4 **COUNT XVII**

5 **(Patent Infringement of U.S. Patent No. 7,602,857  
6 Under 35 U.S.C. § 271, *et. seq.*)**

7 88. Rambus incorporates by reference and realleges paragraphs 1 through 87 above as  
8 though fully restated herein.

9 89. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics:  
10 (1) has infringed and continues to infringe claims of the '857 Patent, literally and/or under the  
11 doctrine of equivalents, by making, using, offering to sell, selling (directly or through  
12 intermediaries), and/or importing Accused Products consisting of or including PCI Express and  
13 DisplayPort peripheral interfaces and certain SATA peripheral interfaces, in this district and  
14 elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal  
15 infringement and/or infringement under the doctrine of equivalents of claims of the '857 Patent,  
16 and/or has actively induced and continues to actively induce others to infringe claims of the '857  
17 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United  
18 States.

19 **COUNT XVIII**

20 **(Patent Infringement of U.S. Patent No. 7,602,858  
21 Under 35 U.S.C. § 271, *et. seq.*)**

22 90. Rambus incorporates by reference and realleges paragraphs 1 through 89 above as  
23 though fully restated herein.

24 91. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics:  
25 (1) has infringed and continues to infringe claims of the '858 Patent, literally and/or under the  
26 doctrine of equivalents, by making, using, offering to sell, selling (directly or through  
27 intermediaries), and/or importing Accused Products consisting of or including PCI Express and  
28 DisplayPort peripheral interfaces and certain SATA peripheral interfaces, in this district and  
elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal

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Attorneys for Plaintiff  
RAMBUS INC.

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

RAMBUS INC.,

Plaintiff,

v.

STMICROELECTRONICS N.V.;  
STMICROELECTRONICS INC.,

Defendants.

CV 10 5449  
CASE NO.

COMPLAINT FOR PATENT  
INFRINGEMENT

DEMAND FOR JURY TRIAL

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1 infringement and/or infringement under the doctrine of equivalents of claims of the '858 Patent,  
2 and/or has actively induced and continues to actively induce others to infringe claims of the '858  
3 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United  
4 States.

5 **COUNT XIX**

6 **(Patent Infringement of U.S. Patent No. 7,715,494  
7 Under 35 U.S.C. § 271, et. seq.)**

8 92. Rambus incorporates by reference and realleges paragraphs 1 through 91 above as  
9 though fully restated herein.

10 93. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics:  
11 (1) has infringed and continues to infringe claims of the '494 Patent, literally and/or under the  
12 doctrine of equivalents, by making, using, offering to sell, selling (directly or through  
13 intermediaries), and/or importing Accused Products consisting of or including PCI Express and  
14 DisplayPort peripheral interfaces and certain SATA peripheral interfaces, in this district and  
15 elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal  
16 infringement and/or infringement under the doctrine of equivalents of claims of the '494 Patent,  
17 and/or has actively induced and continues to actively induce others to infringe claims of the '494  
18 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United  
19 States.

20 **VI.**

21 **PRAYER FOR RELIEF**

22 WHEREFORE, Plaintiff Rambus asks this Court to enter judgment in its favor against  
23 STMicroelectronics and grant the following relief:

24 A. An adjudication that STMicroelectronics has infringed and continues to infringe  
25 the Asserted Patents as alleged above;

26 B. An accounting of all damages sustained by Rambus as a result of  
27 STMicroelectronics's acts of infringement of the Asserted Patents;  
28

C. An award to Rambus of actual damages adequate to compensate Rambus for STMicroelectronics's acts of patent infringement, together with prejudgment and postjudgment interest;

D. An award to Rambus of enhanced damages, up to and including trebling of Rambus's damages pursuant to 35 U.S.C. § 284 for STMicroelectronics's willful infringement of the Asserted Patents;

E. An award of Rambus's costs of suit and reasonable attorneys' fees pursuant to 35 U.S.C. § 285 due to the exceptional nature of this case, or as otherwise permitted by law;

F. A grant of a permanent injunction pursuant to 35 U.S.C. § 283, enjoining STMicroelectronics, and each of its agents, servants, employees, principals, officers, attorneys, successors, assignees, and all those in active concert or participation with STMicroelectronics, including related individuals and entities, customers, representatives, OEMs, dealers, and distributors from further acts of (1) infringement, (2) contributory infringement, and (3) active inducement to infringe with respect to the claims of the Asserted Patents;

G. Any further relief that this Court deems just and proper.

## VII.

### JURY DEMAND

Plaintiff Rambus requests a jury trial on all issues triable to a jury in this matter.

Respectfully Submitted,

DATED: December 1, 2010

MUNGER, TOLLES & OLSON LLP

By: Peter A. Detre  
PETER A. DETRE

Attorneys for Plaintiff  
RAMBUS INC.

1 Plaintiff Rambus Inc. ("Rambus") states the following as its Complaint against Defendants  
2 STMicroelectronics N.V. and STMicroelectronics Inc.:

3 I.

4 THE PARTIES

5 1. Plaintiff Rambus is a Delaware corporation with its principal place of business at  
6 1050 Enterprise Way, Sunnyvale, California, 94089.

7 2. Rambus is informed and believes, and thereupon alleges, that defendant  
8 STMicroelectronics N.V. is a Netherlands corporation with its principal place of business at 39,  
9 Chemin du Champ des Filles, 1228 Plan-Les-Ouates, Geneva, Switzerland.

10 3. Rambus is informed and believes, and thereupon alleges, that defendant  
11 STMicroelectronics Inc. is a Delaware corporation and a wholly owned subsidiary of  
12 STMicroelectronics N.V., with its principal place of business at 1310 Electronics Dr., Carrollton,  
13 Texas 75006.

14 4. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics  
15 N.V. and STMicroelectronics Inc. (collectively "STMicroelectronics") have substantial contacts and  
16 transact substantial business, either directly or through their agents, on an ongoing basis in this  
17 judicial district and elsewhere in the United States.

18 5. Unless specifically stated otherwise, the acts complained of herein were committed  
19 by, on behalf of, and/or for the benefit of STMicroelectronics.

20 II.

21 NATURE OF THE ACTION

22 6. This is an action for patent infringement.

23 7. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics has  
24 been and/or is infringing, contributing to the infringement of, and/or actively inducing others to  
25 infringe claims of U.S. Patent No. 6,034,918 (the "'918 Patent"), U.S. Patent No. 6,038,195 (the  
26 "'195 Patent"), U.S. Patent No. 6,260,097 (the "'097 Patent"), U.S. Patent No. 6,304,937 (the "'937  
27 Patent"), U.S. Patent No. 6,426,916 (the "'916 Patent"), U.S. Patent No. 6,470,405 (the "'405  
28 Patent"), U.S. Patent No. 6,542,555 (the "'555 Patent"), U.S. Patent No. 6,564,281 (the "'281

Patent"), U.S. Patent No. 6,584,037 (the "'037 Patent"), U.S. Patent No. 6,591,353 (the "'353 Patent"), U.S. Patent No. 6,715,020 (the "'020 Patent"), U.S. Patent No. 6,751,696 (the "'696 Patent"), U.S. Patent No. 7,099,404 (the "'404 Patent"), U.S. Patent No. 7,209,997 (the "'997 Patent"), and U.S. Patent No. 7,287,109 (the "'109 Patent"), U.S. Patent No. 7,580,474 (the "'474 Patent"), U.S. Patent No. 7,602,857 (the "'857 Patent"), U.S. Patent No. 7,602,858 (the "'858 Patent"), and U.S. Patent No. 7,715,494 (the "'494 Patent") (collectively the "Asserted Patents").

### III.

#### JURISDICTION AND VENUE

8. This action arises under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*, including 35 U.S.C. § 271. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

9. This Court has personal jurisdiction over STMicroelectronics because STMicroelectronics has substantial contacts and conducts business in the State of California and in this judicial district, and has been infringing, contributing to the infringement of and/or actively inducing others to infringe claims of the Asserted Patents in California and elsewhere.

10. Venue is proper in this Court pursuant to 28 U.S.C. §§ 1391(b), 1391(c), 1391(d) and/or 1400(b) because a substantial part of the events giving rise to Rambus's claims occurred in the Northern District of California and because STMicroelectronics is subject to personal jurisdiction in the Northern District of California.

### IV.

#### FACTUAL BACKGROUND

##### A. Rambus

11. Rambus is one of the world's leading designers of semiconductor interface technologies that are used in a broad range of consumer, computing, and communications applications. In addition to the development of high-speed interfaces, Rambus's breakthrough technology and unparalleled engineering expertise have solved the most challenging interface problems and have brought industry-leading products to market. Rambus's interface solutions have enabled state-of-the-art performance in many products, such as personal computers, workstations,

1 servers, gaming consoles, televisions, Blu-ray players, set-top boxes, printers, video projectors,  
2 network switches, modems, routers, mobile phones, and graphics cards.

3 12. In the late 1980s, Michael Farmwald and Mark Horowitz, the founders of Rambus,  
4 recognized and set out to solve the "memory bottleneck problem," the failure of memory interfaces  
5 to keep pace with the exponential growth in microprocessor speed. Farmwald and Horowitz's  
6 inventions enabled a dynamic random access memory (DRAM) memory architecture that achieved  
7 data transmission rates of 500 megahertz, at a time when other DRAM chips were running in the  
8 range of 20-30 megahertz.

9 13. Since its founding in 1990, Rambus has continued to design, develop, market, and  
10 license its high speed interface technology. Rambus's inventions include new memory devices, new  
11 controllers for controlling such memory devices, and new systems incorporating those memory  
12 devices and memory controllers. Rambus's inventions also include new transmitters and receivers  
13 and interface technology.

14 14. Rambus has made large-scale investments in the exploitation of its technology and a  
15 large number of companies have paid for licenses to its patents. Rambus has granted licenses of  
16 varying scope to its technology to many of the world's largest semiconductor manufacturers.

17 15. Since 1990, Rambus has spent millions of dollars on research and development of its  
18 valuable technology. Rambus relies on the United States patent system to protect the technology  
19 resulting from its research and development. Rambus's continued success depends on its research  
20 and development of memory interface and other solutions, as well as the protection of intellectual  
21 property in its innovative technology.

22 **B. Asserted Patents**

23 16. On April 18, 1990, U.S. Patent Application No. 07/510,898 was filed naming Michael  
24 Farmwald and Mark Horowitz as inventors. The Asserted Patents claiming priority to this  
25 application are referred to herein as the "Farmwald/Horowitz Patents."

26 17. On October 19, 1995, U.S. Patent Application No. 08/545,292 was filed naming  
27 Richard M. Barth and other individuals as inventors. The Asserted Patents claiming priority to this  
28 application are referred to herein as the "Barth Patents."

1 18. On June 20, 1997, U.S. Provisional Patent Application No. 60/050,098 was filed, on  
2 June 23, 1997, U.S. Patent Application No. 08/880,980 was filed, and on June 25, 1997, U.S. Patent  
3 Application No. 08/882,252 was filed, each naming William J. Dally as inventor. The Asserted  
4 Patents claiming priority to these applications are referred to herein as the "Dally Patents."

5 **1. Farmwald/Horowitz Patents**

6 19. On March 7, 2000, U.S. Patent No. 6,034,918, titled "Method of Operating a Memory  
7 Having a Variable Data Output Length and a Programmable Register," was duly and legally issued  
8 to Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

9 20. On March 14, 2000, U.S. Patent No. 6,038,195, titled "Synchronous Memory Device  
10 Having a Delay Time Register and Method of Operating Same," was duly and legally issued to  
11 Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

12 21. On July 10, 2001, U.S. Patent No. 6,260,097, titled "Method and Apparatus for  
13 Controlling a Synchronous Memory Device," was duly and legally issued to Rambus, as assignee of  
14 named inventors Michael Farmwald and Mark Horowitz.

15 22. On October 16, 2001, U.S. Patent No. 6,304,937, titled "Method of Operation of a  
16 Memory Controller," was duly and legally issued to Rambus, as assignee of named inventors  
17 Michael Farmwald and Mark Horowitz.

18 23. On July 30, 2002, U.S. Patent No. 6,426,916, titled "Memory Device Having a  
19 Variable Data Output Length and a Programmable Register," was duly and legally issued to  
20 Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

21 24. On May 13, 2003, U.S. Patent No. 6,564,281, titled "Synchronous Memory Device  
22 Having Automatic Precharge," was duly and legally issued to Rambus, as assignee of named  
23 inventors Michael Farmwald and Mark Horowitz.

24 25. On June 24, 2003, U.S. Patent No. 6,584,037, titled "Memory Device Which Samples  
25 Data After an Amount of Time Expires," was duly and legally issued to Rambus, as assignee of  
26 named inventors Michael Farmwald and Mark Horowitz.

26. On March 30, 2004, U.S. Patent No. 6,715,020, titled "Synchronous Integrated Circuit Device," was duly and legally issued to Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

27. On June 15, 2004, U.S. Patent No. 6,751,696, titled "Memory Device Having a Programmable Register," was duly and legally issued to Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

28. On April 24, 2007, U.S. Patent No. 7,209,997, titled "Controller Device and Method for Operating Same," was duly and legally issued to Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

29. The Farmwald/Horowitz Patents include claims directed to improving the performance of memory controllers.

30. At all relevant times, Rambus has been the owner of the entire right, title, and interest in each of the Farmwald/Horowitz Patents.

## **2. Barth Patents**

31. On October 22, 2002, U.S. Patent No. 6,470,405, titled "Protocol for Communication with Dynamic Memory," was duly and legally issued to Rambus, as assignee of Richard M. Barth and the other inventors named therein.

32. On July 8, 2003, U.S. Patent No. 6,591,353, titled "Protocol for Communication with Dynamic Memory," was duly and legally issued to Rambus, as assignee of Richard M. Barth and the other inventors named therein.

33. On October 23, 2007, U.S. Patent No. 7,287,109, titled "Method of Controlling a Memory Device Having a Memory Core," was duly and legally issued to Rambus, as assignee of Richard M. Barth and the other inventors named therein.

34. The Barth Patents include claims directed to improving the performance of memory controllers.

35. At all relevant times, Rambus has been the owner of the entire right, title, and interest in each of the Barth Patents.

1                   **3.     Dally Patents**

2           36.     On April 1, 2003, U.S. Patent No. 6,542,555, titled "Digital Transmitter With  
3 Equalization," was duly and legally issued to the Massachusetts Institute of Technology ("MIT"), as  
4 assignee of named inventor William J. Dally.

5           37.     On August 29, 2006, U.S. Patent No. 7,099,404, titled "Digital Transmitter," was  
6 duly and legally issued to MIT, as assignee of named inventor William J. Dally.

7           38.     On August 25, 2009, U.S. Patent No. 7,580,474, titled "Digital Transmitter," was  
8 duly and legally issued to MIT, as assignee of named inventor William J. Dally.

9           39.     On October 13, 2009, U.S. Patent No. 7,602,857, titled "Digital Transmitter," was  
10 duly and legally issued to MIT, as assignee of named inventor William J. Dally.

11          40.     On October 13, 2009, U.S. Patent No. 7,602,858, titled "Digital Transmitter," was  
12 duly and legally issued to MIT, as assignee of named inventor William J. Dally.

13          41.     On May 11, 2010, U.S. Patent No. 7,715,494, titled "Digital Transmitter," was duly  
14 and legally issued to MIT, as assignee of named inventor William J. Dally.

15          42.     The Dally Patents include claims directed to improving the performance of digital  
16 communications.

17          43.     At all relevant times, the Dally Patents have been owned by MIT. MIT has  
18 exclusively licensed the Dally Patents to Rambus, subject only to any rights retained by the United  
19 States federal government pursuant to 35 U.S.C. §§ 201-211, with the right to sublicense, and the  
20 right to prosecute any past, present, or future infringement of the Dally Patents.

21           **C.     STMicroelectronics's Acts of Infringement**

22          44.     Rambus is informed and believes, and thereupon alleges, that STMicroelectronics has  
23 made, used, sold, imported and/or offered for sale, and/or continued to make, use, sell, import and/or  
24 offer for sale, products in the United States consisting of or including DRAM memory controllers,  
25 including SDR (Single Data Rate) memory controllers, DDR-type memory controllers (including  
26 DDR or Double Data Rate memory controllers, DDR2 or Double Data Rate 2 memory controllers,  
27 and DDR3 or Double Data Rate 3 memory controllers), and mobile and/or low power versions of the  
28 aforementioned memory controllers.

1           45. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics has  
2 made, used, sold, imported and/or offered for sale, and/or continued to make, use, sell, import and/or  
3 offer for sale, products in the United States consisting of or including high-speed SerDes interfaces,  
4 including PCI Express and DisplayPort peripheral interfaces and certain SATA peripheral interfaces.

5           46. The aforementioned STMicroelectronics products are hereinafter referred to  
6 collectively as the "Accused Products." The Accused Products include at least products that are part  
7 of, for example, STMicroelectronics's automotive, computer and communication infrastructure,  
8 home entertainment and displays, industrial and multisegment sector, and microcontroller product  
9 lines.

10          47. STMicroelectronics's making, use, sale, offers for sale, and/or importation of the  
11 Accused Products in the United States constitute acts of direct infringement of the Asserted Patents.

12          48. In October 2008, Rambus contacted STMicroelectronics to discuss licensing of  
13 Rambus's patents. On or about January 6, 2009, Rambus provided information to  
14 STMicroelectronics regarding the infringement of the '937 Patent, the '916 Patent, the '020 Patent,  
15 the '696 Patent, the '997 Patent, the '353 Patent, and the '109 Patent by STMicroelectronics  
16 products.

17          49. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics has  
18 known of the '555 patent and other patents in the Dally patent family, and has known of Rambus's  
19 rights to the Dally Patents under the exclusive patent license agreement between Rambus and MIT,  
20 since at least the second half of 2004.

21          50. Rambus is informed and believes, and thereupon alleges, that STMicroelectronics's  
22 knowing infringement has continued despite further information regarding infringement provided by  
23 Rambus in the course of attempting to negotiate a license with STMicroelectronics that would fairly  
24 compensate Rambus for STMicroelectronics's use of patents owned or exclusively licensed by  
25 Rambus. For example, on or about July 10, 2009, Rambus provided information to  
26 STMicroelectronics regarding the infringement of the '937 Patent, the '916 Patent, the '997 Patent,  
27 and the '109 Patent by STMicroelectronics products.  
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